

What is claimed is:

- 1           1.       A method for use in a database system, comprising:  
2                    defining a user-defined data type (UDT) with code according to an  
3       interpreted programming language; and  
4                    storing a table containing at least one attribute according to the user-  
5       defined data type.
- 1           2.       The method of claim 1, further comprising defining a user-defined method  
2       (UDM) associated with the UDT with code according to the interpreted programming  
3       language.
- 1           3.       The method of claim 2, further comprising executing the UDM with an  
2       interpreter.
- 1           4.       The method of claim 3, wherein executing the UDM with the interpreter  
2       comprises executing the UDM with a virtual machine.
- 1           5.       The method of claim 4, wherein executing the UDM with the virtual  
2       machine comprises executing the UDM with a JAVA virtual machine.
- 1           6.       The method of claim 1, wherein defining the UDT with code according to  
2       the interpreted programming language comprises defining the UDT with code according  
3       to one of JAVA and C#.
- 1           7.       The method of claim 1, further comprising receiving a Structured Query  
2       Language (SQL) statement to create the UDT, the SQL statement specifying a file  
3       containing the code according to the interpreted programming language.
- 1           8.       The method of claim 7, further comprising declaring a user-defined  
2       method (UDM) in the statement to create the UDT.

1           9.     The method of claim 8, further comprising receiving a second SQL  
2 statement to create the UDM, wherein the second SQL statement specifies a file  
3 containing code to define the UDM, the code according to the interpreted programming  
4 language.

1           10.    The method of claim 1, further comprising:  
2                providing an interpreted programming language virtual machine to  
3 provide a container for the UDT; and  
4                *executing a routine to establish a connection from a database in the*  
5 database system to the virtual machine.

1           11.    The method of claim 10, further comprising providing an interface  
2 between the database and the virtual machine.

1           12.    The method of claim 11, wherein providing the interface comprises  
2 providing a JAVA native interface.

1           13.    The method of claim 10, further comprising receiving a Structured Query  
2 Language (SQL) statement to create the UDT.

1           14.    An article including at least one storage medium containing instructions  
2 that when executed cause a database system to:  
3                define a user-defined data type (UDT) with code according to an  
4 interpreted programming language; and  
5                store a table containing at least one attribute according to the user-defined  
6 data type.

1           15.    The article of claim 14, wherein the instructions when executed cause the  
2 database system to define a user-defined method (UDM) associated with the UDT with  
3 code according to the interpreted programming language.

1           16.    The article of claim 15, wherein the instructions when executed cause the  
2 database system to execute the UDM on an interpreted programming language virtual  
3 machine.

1           17.    The article of claim 14, wherein defining the UDT with code according to  
2 the interpreted programming language comprises defining the UDT with code according  
3 to one of JAVA and C#.

1           18.    The article of claim 14, wherein the instructions when executed cause the  
2 database system to receive a Structured Query Language (SQL) statement to create the  
3 UDT, the SQL statement specifying a file containing the code according to the  
4 interpreted programming language.

1           19.    The article of claim 18, wherein the instructions when executed cause the  
2 database system to declare a user-defined method (UDM) in the statement to create the  
3 UDT.

1           20.    The article of claim 19, wherein the instructions when executed cause the  
2 database system to receive a second SQL statement to create the UDM, wherein the  
3 second statement specifies a file containing code to define the UDM, the code according  
4 to the interpreted programming language.

1           21.    A database system comprising:  
2                   a storage to store code according to an interpreted programming language;  
3 and  
4                   a controller to receive a database query to create a user defined data type  
5 (UDT), the database query containing a clause identifying a storage location of the code  
6 according to the interpreted programming language.

1           22.    The database system of claim 21, wherein the code comprises JAVA  
2 bytecode.

1        23.    The database system of claim 21, wherein the code comprises code  
2    corresponding to the C# language.

1        24.    The database system of claim 21, further comprising an interpreter to  
2    execute the code according to the interpreted programming language.

1        25.    The database system of claim 24, the storage to store second code  
2    according to the interpreted programming language, and the controller to further receive a  
3    second database query to create a user-defined method (UDM) associated with the UDT,  
4    the second database query identifying a location of the second code.

1        26.    The database system of claim 25, the interpreter to execute the second  
2    code.

1        27.    The database system of claim 26, wherein the interpreter comprises a  
2    virtual machine.

1        28.    The database system of claim 21, the storage to further store a table  
2    containing an attribute according to the UDT.